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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/981,125	10/16/2001	David R. Cheriton	57002	5517
26327	7590	09/07/2005	EXAMINER	
THE LAW OFFICE OF KIRK D. WILLIAMS 1234 S. OGDEN ST. DENVER, CO 80210			PARK, JUNG H	
			ART UNIT	PAPER NUMBER
			2661	

DATE MAILED: 09/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/981,125

Applicant(s)

CHERITON, DAVID R.

Examiner

Jung Park

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |  |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____  |

**DETAILED ACTION**

1. Claims 1-28 are pending for the examination.

***Claim Objections***

2. Claim 1 is objected to because of the following informalities:

In claim 1, line (6), the "splitter" should be changed to -- filters --. The reason is that the stream splitter provides a copy of the received packet stream to all filters and the filters are configured in order to forward and drop packets (see spec, pg. 12, 1<sup>st</sup> paragraph ).

**Claim Rejections - 35 USC § 102**

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-7, 12-18, 22-24 and 28 are rejected under 35 U.S.C. 102(b) as being anticipated by Merchant et al. (U.S. 5,408,463, hereafter "Merchant").

Regarding claims 1, 15, 22, and 23, Merchant discloses the means of claim 22, the systems of claims 1 and 15, and the method of claim 23. Merchant discloses, "a packet switching system comprising:

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- means for providing a first and a second packet streams from a single received packet stream ( Figure 1, elements 111:1-N *where the first interface provides a first and second packet streams to the switch modules 101 & 102* );
- a first means for filtering and forwarding the first packet stream ( Figure 1, element 101; col. 2, lines 53-60 *where the NxN switch module is for filtering the input packets and forwarding them to the next units 122:1-N* ); and
- a second means for filtering and forwarding the second packet stream (Figure 1, element 102 *where the NxN switch module is for filtering the input packets and forwarding them to the next units 122:1-N* );
- wherein the first and the second means for filtering and forwarding are each configured to forward a different identifiable first set of packets or to drop a different identifiable second set of packets, and wherein there is at least one packet in the first or the second sets of packets ( Figure 1, elements 126 & 127; col. 4, lines 57-62 *where the switch modules are each configured to forward or drop packets, which are identified by parameters in the packets, by the queue control unit managing the queues* )."

Regarding claim 2, Merchant discloses "the packet switching system of claim 1, wherein the first and second sets of packets for a particular one of the plurality of configurable filters are different than the corresponding first and second sets of packets of a different particular one of the plurality of configurable filters ( Figure 1, elements 126 & 127; col. 4, lines 57-62 *where because each of queue control in the switch modules works independently, the sets of packets being forward or drop in each filter are different each other* )."

Regarding claim 3, Merchant discloses "the packet switching system of claim 2, wherein no packet is included in the first set of two or more of the plurality of configurable filters ( col. 1, lines 36-37 *where there is no packet when the size of queue is zero* )."

Regarding claim 4, it is claim corresponding to claim 3 and is therefore rejected for the similar reasons set forth in the rejection of claim 3.

Regarding claim 5, Merchant discloses "the packet switching system of claim 2, wherein a particular packet received by each of the plurality of filters is forwarded by at most one of the plurality of filters ( col. 1, lines 18-21 *a packet received in one of the filters is forwarded by at most one of the filters since the contents of each of the memory units is identical.* )."

Regarding claims 6, 7 and 16, Merchant discloses "each of plurality of filters is configured to forward/drop all packet traffic in response to a first/second signal ( col. 2, lines 46-49 *where because the switch modules are arranged to operate for tolerance purposes, the first filter is configured to forward/drop all packets when it receives a control signal in response to a detected error or fault condition* )."

Regarding claim 12, Merchant discloses, "further comprising a first packet switch connected to a first one of the plurality of filters and a second packet switch connected to a second one of plurality of filters. ( Figure 1, elements 116:1-N *where the first component is connected to the first filter and the second*

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*one connected to the second filter since the components can be packet switch themselves, packet switch interfaces, or other components ( see spec pg. 12, lines 16-18)).*

Regarding claim 13, Merchant discloses, "the packet switching system comprising a packet stream merger coupled to the first and second packet switches. ( Figure 1, element 119 *where the demux is coupled to the switch modules and it is also inherent that there should be a packet merger to send out packet streams into a network link* )."

Regarding claim 14, Merchant discloses, "the packet switching comprising a first packet switch interface connected to a first one of the plurality of filters and a second packet switch interface connected to a second one of the plurality of filters ( Figure 1, elements 111:1-N, 101 & 102 *where the connection between interfaces and filters (switch modules)* )".

Regarding claim 17, it is claim corresponding to claim 6 and is therefore rejected for the similar reasons set forth in the rejection of claim 6.

Regarding claim 18, it is claim corresponding to claim 17 and is therefore rejected for the similar reasons set forth in the rejection of claim 17.

Regarding claim 24, it is claim corresponding to claims 6 and 7 and is therefore rejected for the similar reasons set forth in the rejection of claims 6 and 7.

Regarding claim 28, although Merchant discloses the method claimed in 23, Merchant is silent on, "a computer-readable medium containing computer-executable instructions for performing the method of claim 23." However, this feature is deemed to be inherent to the Merchant's system because the method can not be executed if there is no computer readable medium.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
6. Claims 8-11, 19-21 and 25-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Merchant in view of Pitcher et al. (U.S. 5,408,463, "Pitcher").

Regarding claims 8, 19 and 25, Merchant discloses the system of claim 1. However, Merchant lacks what Pitcher discloses, "each of the plurality of configurable filers determines whether to drop or forward a particular packet based on at least one value contained within the particular packet. ( Pitcher, col. 3, lines 4-9 *where the filter forwards or drops packets according to the IP address in the data packet* )."

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to include the filter feature in Pitcher's system with Merchant to determine whether to drop or forward a particular based on IP address. A motivation for including the filtering feature is that each line card handles roughly

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half the traffic of the links by filtering the packets according to destination IP address, source IP address, or other parameters in IP packet.

Regarding claims 9, 20 and 26, Merchant discloses the system of claim 1. However, Merchant lacks what Pitcher discloses, "each of the plurality of configurable filters determines whether to drop or forward a particular packet based on a value of a source address, a destination address, a packet type, or a quality of service of the particular packet. ( Pitcher, col. 3, lines 4-9 *where the filter forwards or drops packets according to the IP address in the data packet* )."

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to include the packet filtering feature in Pitcher's system with Merchant to determine whether to drop or forward a particular based on parameters in IP packet. A motivation is the same as in claim 8.

Regarding claim 10 and 11, the examiner takes Official Notice that the packet stream splitter includes an optical splitter or an electrical splitter.

Regarding claims 21 and 27, they are claims regarding to "load balancing" and are rejected for the similar reasons and motivations set forth in the rejection of claim 8.

### **Conclusion**

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jung Park whose telephone number is 571-272-



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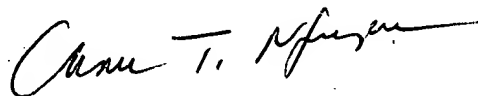
8565 and email address is jung.park@uspto.gov. The examiner can normally be reached on Mon-Fri during 7:10-4:40.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on 571-272-3126. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JP

Jung Park  
Patent Examiner  
Art Unit 2661  
August 31, 2005



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